MALIGNANT MELANOMA OF THE NASAL CAVITY

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ABSTRACT : ***Malignant melanomas of the sinonasal mucosa are very uncommon, presenting frequently in advanced stages with usually a fatal course. Diagnosis becomes more difficult if it is amelanotic variety. Radical surgery is constrained because of increased morbidity & cosmesis, moreover radiotherapy and chemotherapy have little role if any to play. A case of 60 years old male who presented with nasal mass and epistaxis finally diagnosed as melanoma on histolopathology. Some other important aspects of this rare tumor are discussed here.***

Key Words: *Malignant Melanoma, nose, sinonasal mucosa.*

INTRODUCTION

Lucke first described malignant melanoma of the nose in 1869. Of all melanomas i.e. cutaneous melanoma, uveal melanoma and mucosal melanoma (Von Dijk, 2003), primary mucosal melanomas are rare tumours and only 0.5% malignant melanomas arise in the sinonasal mucosa (Gallotti, 2002). They arise from melanocytes located in the nasal cavity and PNS sinuses (Von Dijk, 2003). These are composed of variety of the cell types histologically (Thompson, 2003). These melanomas are almost uniformly fatal not only due to the speed of metastasis through lymphatics and blood but also because of their luxuriant growth. In general, the treatment outcomes are poor despite combination therapy and quality of life issues become as important as attempts at complete extirpation.

CASE REPORT

A 60 years old male presented with left sided painless nasal mass with intermittent epistaxis since 5 months in the department of Otorhinolaryngology (Fig. I). He didn't have any other significant Ear, Nose and Throat problem except for nasal obstruction. There was no swelling over the face or the neck. On local exam of the nose, a soft friable, dark brown mass was seen on the left side of the nose, which bled on touch and was attached to the lateral wall of the nose but away from skin or mucocutaneous junction. There was no lymphadenopathy. Posterior rhinoscopy showed no mass in the choana. Systemic examination was normal.

X-ray of the nose and PNS showed haziness of the nasal cavity with air fluid level in the left maxillary antrum (Fig.II). Routine investigations of blood, urine, X-ray chest and ECG were normal. Biopsy was taken and histopathological examination showed sheets of pleomorphic tumor cells, which were round to polygonal with large hyperchromatic nucleus and a prominent nucleolus. Cytoplasm was abundant, deeply eosinophilic and filled with brown melanin pigment. There was increased mitotic activity with atypical mitosis (Fig.III).

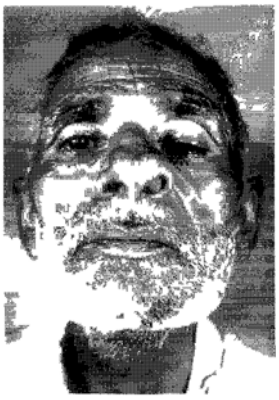

Fig I Clinical photograph showing a soft friable mass in the left nasal cavity

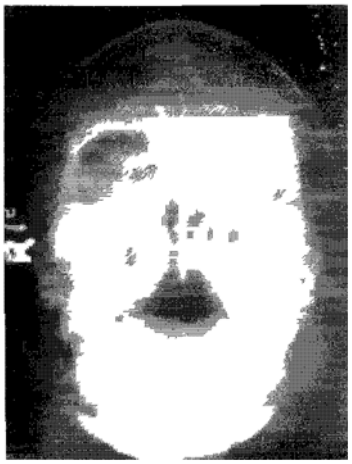

Fig II X-ray of the nose and paranasal sinuses shows haziness of the nasal cavity with air fluid level in the left maxillary antrum

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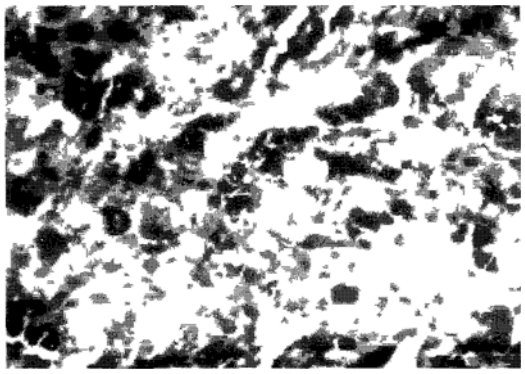

Fig III Microphotograph showing sheets of pleomorphic tumor cells filled with brown melamin pigment

A diagnosis of malignant melanoma of the nasal cavity was established. The patient was treated with wide local excision under G.A. with postoperative radiotherapy.

DISCUSSION

Next to the skin and eyes, juxtacutaneous mucous membrane (i.e. oral mucosa, upper respiratory tract, vagina and anorectal mucosa) is most prone to malignant melanoma. Malignant melanoma comprises 5% of all nasal tumors and is second commonest malignant neoplasm (23%) in that region. Median age of presentation is 63 years (Prasad, 2003) but can present from 50 years with a peak in the seventh decade. Here the patient is a 60-year-old male. The dark brown colour of the mass not only made us suspicious of the lesion but also helped us in excision of the mass and histopathological study confirmed the diagnosis. The respiratory mucosa covering maxilla is the most frequent site of occurrence. Both sexes are equally affected (Prasad, 2003). Usually the patients presents with epistaxis, mass or nasal obstruction with a mean period of 8.2 months (Thompson, 2003).

Sinonasal melanomas frequently show vascular and deep tissue invasion. Although they show aggressive morphological features significantly more frequently than oral melanomas but over all prognosis remains similar in both groups. Histology reveals various cell type i.e. epitheloid, spindle, undifferentiated, frequently arranged in a peritheliomatous distribution (Thompsons, 2003). Wright & Heeman (1975) described the electron microscopic picture of malignant melanoma of nose in detail. Microscopic picture can be so variable as to simulate carcinoma, lymphoma, sarcoma and olfactory neuroblastoma (Thompson, 2003). Immunohistochemical studies show positive reactions for S-100 protein, tyrosinase, HMB-45, Melan A & microphthalmia, transcription factor (Thompson, 2003). The C.G.H (Comparative Genomic Hybridization) profiles show remarkably consistent alterations i.e. chromosome arm 1q gained in all & also gains of 6p or 8q chromosome arms, which is a distinct pattern compared from cutaneous & uveal melanomas (Van Dijk, 2003).

Computed Tomography & MRI are complementary to each other in the assessment and staging of these tumors by determining the absence or presence of extension of disease (Loevner, 2003).

The modality of treatment includes surgery followed by radiotherapy or chemotherapy but majority of patients develop recurrence most of which die due to dessiminated disease. Our patient was given surgical treatment followed by radiotherapy and was asked to follow up. For induction of nonspecific immunity, chemotherapy is not preferred which may derange tumor regression or even regression of metastasis. Dietary restriction of tyrosinase substrates may reduce the size of tumor. Local recurrence is about 40-75%. Survival rate at 3 years is 50%, which plunges to 30% at 5years.

REFERENCES

1 Van Dijk M et al (2003) Distinct chromosomal aberrations in sinonasal mucosal melanoma as detected by comparative genomic hybridization Genes Chromosomes Cancer, 36(2) 151-8

2 Galloti M, Genearelli G et al (2002) Primary malignant melanoma of the nasal mucosa with orbital involvement Acta otorhinolaryngolog Ital, 22(4) 248-51

3 Thompson L D, Wienke J A (2003) Sinonasal tract & nasopharyngeal melanomas· clinicopathalogical study of 115 cases with a proposed staging system Am J Surg Pathol, 27(5) 594-611

4 Prasad M L, Busam K J, Patel S G (2003) Clinicopathalogical differences in malignant melanoma arising in oral squamous & sinonasal respiratory mucosa of the upper aerodigestive tract Arch Pathol Lab Med, 127 (8). 997-1002.

5 Wright, JWL, Heeman, PJ (1975) Electron microscopy finding in malignant melanoma of the nose Otorhinolaryngology 37 233-236

6 Loevner L A, Sonners A I (2002) Imaging of neoplasms of the PNS Magn Reson Imaging Clin N Am , 10(3) 467–93.

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